

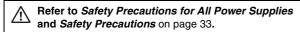
Switch Mode Power Supply (15/25/35/50/75/100/150/200/350-W Models) S8FS-C

High Reliability at a Reasonable Cost.

c**AU**°us (€

Reliable, Basic Power Supplies That Contribute to Stable Equipment Operation.

- High Reliability: Enhanced abnormal overvoltage resistance and lightning surge resistance for stable operation even with an unstable input voltage.
- Long Life: Japanese 105°C electrolytic capacitors are used to achieve stable quality and long life. A reliable 3-year warranty.*
- Wide Input Ranges: 100 to 120 VAC and 200 to 240 VAC
- Full Lineup: Models are available for the main output voltages and capacities used in FA applications.
- Global Standards: Conforms to CE (all models), Approved for UL (all models) and CCC (15 to 150-W models).
- Easy mounting to DIN Rails with Mounting Brackets (sold separately).
- * Refer to Period and Terms of Warranty on page 36.



Product Lineup

Output		Power rating											
voltage	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	350 W				
5 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
12 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
15 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes						
24 V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
36 V						Yes	Yes	Yes	Yes				
48 V				Yes	Yes	Yes	Yes	Yes	Yes				

Model Number Structure

Model Number Legend

Note: Not all combinations are possible. Refer to List of Models in Ordering Information on page 2.

S8FS-C			
	(1)	(2)	(3)

(1) Power Rating

Code	Power rating
015	15 W
025	25 W
035	35 W
050	50 W
075	75 W
100	100 W
150	150 W
200	200 W
350	350 W

(2) Output Voltage

Code	Output voltage
05	5 V
12	12 V
15	15 V
24	24 V
36	36 V
48	48 V

(3) Terminal Block Direction

Code	Terminal Block Direction					
Blank	Models with terminal block facing upward					
J	Models with terminal block facing forward					

S8FS-C

Ordering Information

List of Models

Note: For details on normal stock models, contact your nearest OMRON representative.

ower rating	Input voltage	Output voltage (VDC)	Output current	Built-in fan	Model with terminal block facing upward	Model with terminal blog facing forward
		5 V	3 A		0 1	S8FS-C0150
		12 V	1.3 A			S8FS-C01512
15 W		15 V	1 A			S8FS-C0151
		24 V	0.7 A			S8FS-C0152
	1	5 V	5 A		S8FS-C02505	S8FS-C0250
	Input voltage Input	12 V	2.1 A		S8FS-C02512	S8FS-C0251
25 W		15 V	1.7 A		S8FS-C02515	S8FS-C0251
		24 V	1.1 A		S8FS-C02524	S8FS-C0252
		5 V	7 A		S8FS-C03505	S8FS-C0350
	100 to 240 VAC	12 V	3 A		S8FS-C03512	S8FS-C0351
35 W		15 V	2.4 A		S8FS-C03515	S8FS-C0351
		24 V	1.5 A		S8FS-C03524	S8FS-C0352
		5 V	10 A		S8FS-C05005	S8FS-C0500
		12 V	4.2 A		S8FS-C05012	S8FS-C0501
50 W		15 V	3.4 A		S8FS-C05015	S8FS-C0501
		24 V	2.2 A		S8FS-C05024	S8FS-C0502
		48 V	1.1 A		S8FS-C05048	S8FS-C0504
		5 V	14 A		S8FS-C07505	S8FS-C0750
		12 V	6.2 A		S8FS-C07512	S8FS-C0751
75 W	_	15 V	5 A	None	S8FS-C07515	S8FS-C0751
		24 V	3.2 A		S8FS-C07524	S8FS-C0752
		48 V	1.6 A		S8FS-C07548	S8FS-C0754
	100 to 120 VAC.	5 V	20 A		S8FS-C10005	S8FS-C1000
	200 to 240 VAC			S8FS-C10012	S8FS-C1001	
		15 V	7 A		S8FS-C10015	S8FS-C1001
100 W		24 V	4.5 A		S8FS-C10024	S8FS-C1002
		36 V	2.8 A		S8FS-C10036	S8FS-C1003
		48 V	2.3 A		S8FS-C10048	S8FS-C1004
	1 -/	5 V	26 A		S8FS-C15005	S8FS-C1500
		12 V	12.5 A		S8FS-C15012	S8FS-C1501
		15 V	10 A		S8FS-C15015	S8FS-C1501
150 W		24 V	6.5 A		S8FS-C15024	S8FS-C1502
		36 V	4.3 A		S8FS-C15036	S8FS-C1503
	100 to 120 VAC.	48 V	3.3 A		S8FS-C15048	S8FS-C1504
	200 to 240 VAC	5 V	40 A		S8FS-C20005	S8FS-C2000
	`	12 V	17 A		S8FS-C20012	S8FS-C2001
200 W		24 V	8.8 A		S8FS-C20024	S8FS-C2002
	254 to 373 VDC	36 V	5.9 A		S8FS-C20036	S8FS-C2003
	` '	48 V	4.43 A		S8FS-C20048	S8FS-C2004
	/	5 V	60 A		S8FS-C35005	S8FS-C3500
		12 V	29 A		S8FS-C35012	S8FS-C3501
350 W		24 V	14.6 A	Yes	S8FS-C35024	S8FS-C3502
300 VV		36 V	9.7 A	103	S8FS-C35036	S8FS-C3503
		48 V	0.1 A		S8FS-C35048	30. 3-00000

Note: You can use brackets that are sold separately to mount the Power Supplies to DIN Rail. Refer to Mounting Brackets (Order Separately) on page 26.

^{*1.} The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 240 VAC.

*2. The range for compliance with EC Directives and safety standards (UL, EN, etc.) is 100 to 120 VAC, 200 to 240 VAC.

Ratings, Characteristics, and Functions

Item		Power rating Output voltage	5 V	12 V	15 W	24 V				
iteiii		115 VAC input				85% typ.				
Efficiency	/ *	230 VAC input	80% typ.	84% typ.	84% typ. 86% typ.	87% typ.				
		230 VAC IIIput	82% typ.	85% typ.						
	Voltage range *		Single phase 85 to 264 VAC, 120 to 370 VDC (The L terminal for the DC input is the positive side and safe standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on							
			page 18.)							
	Frequency *		50 /60 Hz (47 to 450 Hz)							
	Current *	115 VAC input	0.3 A typ.							
nput	- Carrone -	230 VAC input	0.19 A typ.							
	Power factor			_						
	Leakage current	115 VAC input	0.05 mA	0.05 mA	0.05 mA	0.05 mA				
	Loundy our on	230 VAC input	0.10 mA	0.10 mA	0.10 mA	0.10 mA				
	Inrush current *	115 VAC input	16 A typ.							
	(for a cold start at 25°)	230 VAC input	32 A typ.							
	Rated Output Curre	nt	3 A	1.3 A	1 A	0.7 A				
	Voltage adjustment	range *	-10% to 10% (with V. AD	J)						
	Ripple & Noise	100 to 240 VAC	30 mVp-p max.	30 mVp-p max.	40 mVp-p max.	30 mVp-p max.				
	voltage *	input	0.50/							
	Input variation influ		0.5% max.							
Output	Load variation influ	1	1.0% max.							
	Temperature vari- ation influence	100 to 240 VAC input	0.03%/°C max.							
		115 VAC input	490 ms typ.	500 ms typ.	470 ms typ.	480 ms typ.				
	Startup time *	230 VAC input	470 ms typ.	480 ms typ.	450 ms typ.	460 ms typ.				
		115 VAC input	14 ms typ.	16 ms typ.	18 ms typ.	15 ms typ.				
	Hold time *	230 VAC input	83 ms typ.	87 ms typ.	92 ms typ.	79 ms typ.				
	Overload protection		Yes, automatic reset			3, 3,				
			,	ted output voltage, powe	r shut off (shut off the	input voltage and turn on the inp				
	Overvoltage protect	tion *	again)	3.,,,	(p				
Addi-	Overheat protection	ו	No							
unc-	Series operation		Yes (For up to 2 Power S	upplies, external diodes	are required.)					
	Parallel operation		No (However, backup op	eration is possible, exter	nal diodes are required	d.)				
	Remote sensing		No							
	Remote control		No							
	Output indicator		Yes (LED: Green)							
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA							
Insula-	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA							
tion			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA							
	Insulation resistance	e	100 M Ω min. (between all	output terminals and all	input terminals/PE terminals/PE terminals/PE	minals) at 500 VDC				
	Ambient operating	temperature		equired according to the	temperature. Refer to	Derating Curves on page 17.) (w				
		•	no condensation or icing)							
Envi-	Storage temperatur		-40 to 85°C (with no cond	<u> </u>						
ronment	Ambient operating	humidity	20% to 90% (Storage humidity: 10% to 95%)							
	Vibration resistance	е	10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions							
	Shock resistance		150 m/s ² , 3 times each in							
Delieti	MTBF		135,000 hrs min.							
Reliabil- ity	Life expectancy *		10 years min.							
•	Dimensions (W×H×I	D)	10 years min. Refer to <i>Dimensions</i> on page 23.							
Con-	Weight	-,	150 g max.	ugo 20.						
struc-	Cooling fan		No							
tion	Degree of protectio	n								
	Harmonic current e			.2 GB17625 1						
	namonic current e	Conducted Emis-	Conforms to EN 61000-3-2, GB17625.1							
		sions	Conforms to EN 61204-3	Class B, EN 55011 Class	ss B, GB9254					
	EMI	Radiated Emis-								
		sions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
01	EMS		Conforms to EN 61204-3	high severity levels						
Stan- dards	Safety Standards		Approved Standards UL: cURus UL 60950-1 (CSA: cURus C22.2 No60 CCC: GB4943 Conformed Standards EN: EN 60950-1 OVC II F	950-1	dieth					
	Marine Standards		No		,					
			No	No						

^{*}Refer to Conditions on page 12.

		Power rating			25 W				
Item		Output volt-	5 V	12 V	15 V	24 V			
		age 115 VAC input	80% typ.	84% typ	85% tvp	86% tvn			
Efficiency	*	230 VAC input	82% typ.	S V	**				
	V-14		, ''						
	Voltage range *		standards do not apply.) (Derating is required according to the input voltage. Refer to Derating Curves on page 18						
	Frequency *	1	50 /60 Hz (47 to 450 Hz)						
	Current *	115 VAC input	0.49 A typ.						
Input		230 VAC input	0.3 A typ.						
-	Power factor	445.VAQ :	0.40 4	0.40 4	0.40 4	0.40 4			
	Leakage current	115 VAC input	0.10 mA						
		230 VAC input 115 VAC input	0.20 mA 16 A typ.	0.20 MA	0.20 MA	0.20 MA			
	Inrush current * (for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curr	·	5 A	2.1 A	1.7 A	1.1 A			
_	Voltage adjustmen		-10% to 10% (with V. ADJ)						
	Ripple & Noise	100 to 240 VAC	, ,	00 m)/n n mov	20 m)/n n may	40 mVn n may			
	voltage *	input	20 тур-р тах.	20 mvp-p max.	зо тур-р тах.	40 ттур-р тах.			
-	Input variation infl		0.5% max.						
Output -	Load variation infl		1.0% max.						
		100 to 240 VAC input	0.03%/°C max.						
	Temperature variation influence Startup time * Hold time * Overload protectio Overvoltage protection Overheat protection Series operation Parallel operation	115 VAC input	390 ms typ.	340 ms typ.	400 ms typ.	360 ms typ.			
	Startup time *	230 VAC input	360 ms typ.						
	Hold time *	115 VAC input	17 ms typ.	22 ms typ.	23 ms typ.	21 ms typ.			
	noia time *	230 VAC input	103 ms typ.	113 ms typ.	117 ms typ.	112 ms typ.			
	Overload protection	on	Yes, automatic reset			•			
Overvoltage prot		ction *	Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input						
Addi- tional Si func- tions R	Overheat protection		No						
	•		Yes (For up to 2 Power Sup	plies, external diodes a	re required.)				
	•			ation is possible, extern	al diodes are required.)				
	Remote sensing		No No						
-	Remote control		No						
	Output indicator		, ,	all input terminals and	output torminals) ourrent out	off 20 mA			
	Withstand voltage		`						
Insula- tion	withstand voltage		, , ,						
	Insulation resistan	ice							
			,	•	•				
	Ambient operating	temperature	condensation or icing)		•				
Fnvi-	Storage temperatu		-40 to 85°C (with no conde	nsation or icing)					
ronment	Ambient operating	humidity	, ,	,					
	Vibration resistand	ce							
	Shock resistance								
	MTBF		135,000 hrs min.	, , , , , , , , , , , , , , , , , , , ,					
	Life expectancy *		10 years min.						
	Dimensions (W×H)	√D)	Refer to <i>Dimensions</i> on pages 20 and 23.						
Con- struc-	Weight		250 g max.						
tion	Cooling fan		No						
	Degree of protection								
	Harmonic current		Conforms to EN 61000-3-2,	GB17625.1					
		Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254						
	EMI	Radiated				- A O			
		Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254						
	EMS		Conforms to EN 61204-3 hi	gh severity levels					
Stan- dards	Safety Standards		Approved Standards UL: cURus UL 60950-1 (RCSA: cURus C22.2 No6095 CCC: GB4943 Conformed Standards EN: EN 60950-1 OVC II Pol	i0-1					
	Marine Standards		No		A ()				
			No						

^{*} Refer to Conditions on page 12.

		Power rating			35 W				
Item		Output voltage	5 V	12 V	15 V	24 V			
		115 VAC input	81% typ.	83% typ.	84% typ.	87% typ.			
Efficiency	<i>'</i> *	230 VAC input	81% typ.	84% typ.	84% typ.	87% typ.			
	Voltage range *					s the positive side and safety			
-			standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18						
-	Frequency *		50 /60 Hz (47 to 450 Hz)						
	Current *	115 VAC input	0.66 A typ.						
Input		230 VAC input	0.41 A typ.						
•	Power factor	445 VAO :	0.45 4	0.45 4	0.45 4	0.45 4			
	Leakage current	115 VAC input	0.15 mA	0.15 mA	0.15 mA	0.15 mA			
-		230 VAC input	0.30 mA	0.25 mA	0.25 mA	0.25 mA			
	Inrush current * (for a cold start at 25°)	115 VAC input	16 A typ.						
	·	230 VAC input	32 A typ.	3 A	0.4.4	15 A			
-	Rated Output Curre		7 A		2.4 A	1.5 A			
-	Voltage adjustmen		-10% to 10% (with V.	ADJ)					
	Ripple & Noise voltage *	100 to 240 VAC input	80 mVp-p max.	90 mVp-p max.	90 mVp-p max.	80 mVp-p max.			
-	Input variation influ	uence *	0.5% max.						
	Load variation influ	uence *	1.0% max.						
Output	Temperature vari-	100 to 240 VAC	0.03%/°C max.						
	ation influence	input	0.05%/ C IIIax.		1				
	Startup time *	115 VAC input	750 ms typ.	750 ms typ.	760 ms typ.	770 ms typ.			
		230 VAC input	700 ms typ.	690 ms typ.	710 ms typ.	720 ms typ.			
	Hold time *	115 VAC input	13 ms typ.	14 ms typ.	14 ms typ.	15 ms typ.			
	230 VAC input		74 ms typ.	75 ms typ.	75 ms typ.	79 ms typ.			
	Overload protectio	n	Yes, automatic reset Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the						
-	Overvoltage protection *			of rated output voltage, powe	r shut off (shut off the input vo	oltage and turn on the input agai			
Addi-	Overheat protection		No						
ional S unc- p ions	Series operation		` '	er Supplies, external diodes a					
	Parallel operation		, , ,	o operation is possible, extern	nal diodes are required.)				
	Remote sensing		No						
	Remote control		No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA						
Insula- tion	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA						
			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA						
	Insulation resistan	ce	100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC -20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no						
	Ambient operating	temperature	condensation or icing)		temperature. Heter to <i>Deratir</i>	ng Curves on page 17.) (with no			
-	Storage temperatu	re	-40 to 85°C (with no c						
Envi-	Ambient operating		20% to 90% (Storage	humidity: 10% to 95%)					
ronment			10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions						
	Vibration resistance	;e 	10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions						
	Shock resistance		150 m/s², 3 times each in ±X, ±Y, ±Z directions						
Reliabil-	MTBF		135,000 hrs min.						
ity	Life expectancy *		10 years min.						
_	Dimensions (W×H>	(D)	Refer to Dimensions of	on pages 20 and 23.					
Con- struc-	Weight		250 g max.						
tion	Cooling fan		No						
	Degree of protection								
	Harmonic current		Conforms to EN 61000-3-2, GB17625.1						
		Conducted Emissions	Conforms to EN 61204	4-3 Class B, EN 55011 Clas	ss B, GB9254				
	EMI	Radiated			•				
		Emissions	Conforms to EN 6120	4-3 Class B, EN 55011 Clas	ss B, GB9254				
	EMS		Conforms to EN 61204-3 high severity levels						
Stan- dards			Approved Standards						
uaius			UL: cURus UL 60950 CSA: cURus C22.2 No	-1 (Recognition) OVC II Pol2					
	Safety Standards		CCC: GB4943						
			Conformed Standards						
	Marina Standard		EN: EN 60950-1 OVC	II 7012					
	Marine Standards SEMI		No		()				
	Conditions on page		No						

^{*}Refer to Conditions on page 12.

		Power rating			50 W				
tem		Output voltage	5 V	12 V	15 V	24 V	48 V		
		115 VAC input	79% typ.	83% typ.	84% typ.	86% typ.	87% typ.		
Input Pov Lea Inru (for a Rat Voli Rip volt Input Coa Addi- func- tions Fer Rer Out Insula- tion Insula- EMI Sto Con- Struc- tion Deg Har EMI Stan- Cox Deg Har EMI Stan- Cox Safe	y *	230 VAC input	80% typ.	84% typ.	85% typ.	86% typ.	87% typ.		
		230 VAC IIIput	,		VDC (The L terminal for		,,,		
	Voltage range *								
	Frequency *		standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 1 50 /60 Hz (47 to 450 Hz)						
	riequency *	115 VAC immut							
	Current *	115 VAC input	0.97 A typ.						
Innut		230 VAC input	0.59 A typ.						
put	Power factor	T							
	Leakage current	115 VAC input	0.25 mA	0.25 mA	0.25 mA	0.25 mA	0.25 mA		
	Leakage current	230 VAC input	0.60 mA	0.55 mA	0.55 mA	0.55 mA	0.55 mA		
	Inrush current *	115 VAC input	16 A typ.	•	•	•			
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curr	ent	10 A	4.2 A	3.4 A	2.2 A	1.1 A		
•	-		-10% to 10% (with \						
		100 to 240 VAC	-10 /8 to 10 /8 (With V	V. AD0)					
Dutput Por Real Por Parisions Real Por Parision				110 mVp-p max.	100 mVp-p max.	100 mVp-p max.	120 mVp-p max.		
	Input variation influence *		0.5% max.						
	Voltage range * Frequency * Current * Power factor Leakage current Inrush current * (for a cold start at 25°) Rated Output Curre Voltage adjustment Ripple & Noise voltage * Input variation influ Load variation influ Temperature variation influence Startup time * Hold time * Overload protection Overvoltage protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Withstand voltage Insulation resistance Shock resistance Shock resistance Inabil- Life expectancy * Dimensions (W×H×I Weight Cooling fan Degree of protection Harmonic current el EMI EMS								
Output	Voltage range * Frequency * Current * Power factor Leakage current * (for a cold start at 25°) Rated Output Current * Voltage adjustment Ripple & Noise voltage * Input variation influction influence Startup time * Hold time * Overload protection Overvoltage protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Ambient operating Vibration resistance Storage temperature Ambient operating Vibration resistance in Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Storage temperature Ambient operating Vibration resistance in Series operation Parallel operation Output indicator Withstand voltage Insulation resistance in Storage temperature Ambient operating Vibration resistance in Degree of protection Harmonic current expenses of protection Harmonic current expense		1.0% max.						
	Voltage range * Frequency * Current * Power factor Leakage current * (for a cold start at 25°) Rated Output Currer Voltage adjustment Ripple & Noise voltage * Input variation influ Temperature variation influence Startup time * Hold time * Overload protection Overvoltage protection Overvoltage protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Withstand voltage Insulation resistance Storage temperature Ambient operating Vibration resistance Shock resistance Iliabil- Life expectancy * Dimensions (W×H×I) Weight Cooling fan Degree of protection Harmonic current e EMI EMS	100 to 240 VAC input	0.03%/°C max.						
	ution initiating	-	720 mg tun	720 mg tun	710 mg tun	710 mg tun	770 mg tun		
	Startup time *	115 VAC input	730 ms typ.	730 ms typ.	710 ms typ.	710 ms typ.	770 ms typ.		
Output Terration Sta Ho Ov Ov Ovi ional unc- ions Rei		230 VAC input	680 ms typ.	670 ms typ.	610 ms typ.	640 ms typ.	690 ms typ.		
	Hold time *		12 ms typ.	14 ms typ.	14 ms typ.	14 ms typ.	14 ms typ.		
		230 VAC input	71 ms typ.	77 ms typ.	78 ms typ.	77 ms typ.	80 ms typ.		
	Overload protection	n	Yes, automatic reset						
	Overvoltage protect	ction *	Yes, 115% or higher	of rated output voltage	ge, power shut off (shut	off the input voltage an	d turn on the input ag		
	Overheat protection		No						
	•		Yes (For up to 2 Power Supplies, external diodes are required.)						
unc- ions R	·		, ,	• • • • • • • • • • • • • • • • • • • •	ole, external diodes are	required)			
	-	•		up operation is possit	oic, external aloues are	required.)			
	<u>_</u>		No						
			No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA						
Insula-	Withstand voltage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA						
tion			1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA						
•	Insulation resistan	се	100 MΩ min. (betwe	en all output terminal	s and all input terminals	/PE terminals) at 500 V	'DC		
	Ambient enevetine	toma noveluse	100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC -20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with n						
	Ambient operating	temperature	condensation or icing)						
	Storage temperatu	re	-40 to 85°C (with no condensation or icing)						
	Ambient operating	humidity	20% to 90% (Storag	e humidity: 10% to 95	5%)				
Addi- ional unc- ions Ren Out nsula- ion Envi- onment Con- ctruc- ion Con- Con- ctruc- ion Con- Con- ctruc- ion Con- Con- Con- Con- Con- Con- Con- Co		<u> </u>	10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions						
	vibration resistance	e			1 h each in X, Y, and Z				
	Shock resistance		150 m/s ² , 3 times ea	ach in ±X, ±Y, ±Z dire	ctions				
Reliabil-	MTBF		135,000 hrs min.						
			10 years min.						
			Refer to <i>Dimensions</i> on pages 20 and 24.						
Con-	`	·-,							
struc-			300 g max.						
tion			No						
	Harmonic current		Conforms to EN 610	000-3-2, GB17625.1					
		Conducted	Conforms to EN 612	204-3 Class B. EN 55	011 Class B, GB9254				
	ЕМІ	Emissions							
		Radiated	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254						
	F110	Emissions							
Stan-	EMS			204-3 high severity lev	/eis				
			Approved Standards		/C II Dalo				
			CSA: cURus UL 6095	50-1 (Recognition) O\ No60950-1	70 II P012				
	Safety Standards		CCC: GB4943						
			Conformed Standard						
			EN: EN 60950-1 OV	C II Pol2		<u> </u>			
			No						
	Marine Standards		140			V			

^{*} Refer to Conditions on page 12.

		Power rating			75 W					
Item		Output voltage	5 V	12 V	15 V	24 V	48 V			
		115 VAC input	75% typ.	83% typ.	84% typ.	87% typ.	87% typ.			
Efficiency	<i>y</i> *	230 VAC input	77% typ.	83% typ.	84% typ.	87% typ.	87% typ.			
	Voltage range *		Single phase 85 to 2	64 VAC, 120 to 370	VDC (The L terminal for	the DC input is the pos	sitive side and safety			
	Frequency *		standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 1 50 /60 Hz (47 to 450 Hz)							
	,,	115 VAC input	1.4 A typ.							
	Current *	230 VAC input	0.83 A typ.							
nput	Power factor	200 TAO IIIput								
	r ower lactor	115 VAC input	0.25 mA	0.25 mA	0.25 mA	0.25 mA	0.25 mA			
	Leakage current	· ·					0.60 mA			
		230 VAC input	0.60 mA	0.60 mA	0.60 mA	0.60 mA	0.00 MA			
		115 VAC input	16 A typ.							
	,	230 VAC input	32 A typ.	1	1	1	1			
	•		14 A	6.2 A	5 A	3.2 A	1.6 A			
		t range *	-10% to 10% (with V	/. ADJ)						
	voltage * input		80 mVp-p max.	110 mVp-p max.	90 mVp-p max.	110 mVp-p max.	140 mVp-p max.			
Output Dutput Dutput Dutput Sta Hol Over Over Over Ser Par Out Rer Out	Input variation infl	uence *	0.5% max.							
Outnut	Frequency * Current * Power factor Leakage current Inrush current * (for a cold start at 25°) Rated Output Current Voltage adjustment Ripple & Noise voltage * Input variation influence Startup time * Hold time * Overload protection Overvoltage protect Overheat protection Series operation Parallel operation Remote sensing Remote control Output indicator Withstand voltage Insulation resistance Ambient operating to Storage temperature Ambient operating to Vibration resistance Shock resistance MTBF Life expectancy * Dimensions (W×H×I Weight Output indicator Withstand voltage Insulation resistance Shock resistance Withstand voltage Insulation resistance Shock resistance	uence *	1.0% max.							
Juipui		100 to 240 VAC input	0.03%/°C max.							
Sta Ho	Startum time "	115 VAC input	750 ms typ.	720 ms typ.	730 ms typ.	750 ms typ.	700 ms typ.			
	Startup time *	230 VAC input	710 ms typ.	680 ms typ.	690 ms typ.	690 ms typ.	730 ms typ.			
	11-1-1-1	115 VAC input	12 ms typ.	13 ms typ.	13 ms typ.	14 ms typ.	15 ms typ.			
	Hold time * 230 VAC input		75 ms typ.	74 ms typ.	74 ms typ.	76 ms typ.	78 ms typ.			
	Overload protection		Yes, automatic reset			, , , , , , , , , , , , , , , , , , ,				
	Overvoltage protection *		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input aga							
	Overheat protection		No		5-,	, , , , , , , , , , , , , , , , , , ,				
Addi-	•		Yes (For up to 2 Power Supplies, external diodes are required.)							
unc- P	•		No (However, backup operation is possible, external diodes are required.)							
	•		No (However, back)	ap operation is possit	ne, external diodes are	required.)				
			No							
	Output indicator		Yes (LED: Green)							
	W:45 -4 d lk		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA							
nsula- tion	withstand voitage		2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA							
				1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA						
	insulation resistan	ce	100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC							
	Ambient operating	temperature	-20 to 60°C (Derating is required according to the temperature. Refer to Derating Curves on page 17.) (with no condensation or icing)							
	Storage temperatu	re	-40 to 85°C (with no condensation or icing)							
Envi-	Ambient operating	humidity	20% to 90% (Storage humidity: 10% to 95%)							
Omment	Vibration resistance	e	10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions 10 to 500 Hz, 0.26-mm half amplitude for 1 h each in X, Y, and Z directions							
	Shock resistance		150 m/s ² , 3 times ea	ch in ±X, ±Y, ±Z dire	ctions					
Reliabil-	MTBF		135,000 hrs min.							
ty	Life expectancy *		10 years min.							
	Dimensions (W×H×	(D)	Refer to <i>Dimensions</i> on pages 21 and 24.							
Con-	,	•	350 g max.							
struc- tion			No							
.011		on								
	Harmonic current		Conforms to EN 610	00-3-2. GB17625 1						
		Conducted		<u>.</u>			$\overline{}$			
	ЕМІ	Emissions Radiated		·	011 Class B, GB9254		•			
		Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
	EMS		Conforms to EN 612	04-3 high severity lev	/els					
Stan- dards	Safety Standards		Approved Standards UL: cURus UL 6095 CSA: cURus C22.2 f CCC: GB4943 Conformed Standard EN: EN 60950-1 OV	0-1 (Recognition) O\ No60950-1 ds	/C II Pol2	Mile				
	Marine Standards		No							

^{*}Refer to Conditions on page 12.

		Power rating	100 W							
Item		Output voltage	5 V 12 V 15 V 24 V 36 V 48 V							
-u:-!-		115 VAC input	80% typ.	82% typ.	83% typ.	85% typ.	86% typ.	87% typ.		
fficiency	y *	230 VAC input	81% typ.	83% typ.	84% typ.	87% typ.	87% typ.	88% typ.		
		•	Single phase 85 to 132 VAC, 176 to 264 VAC, 248 to 373 VDC Select with the switch.							
	Voltage range *		(The L terminal for the DC input is the positive side and safety standards do not apply.)							
,	Frequency *		(Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.) 50 /60 Hz (47 to 450 Hz)							
	Frequency &	115 VAC input	,	0 450 HZ)						
	Current *	115 VAC input	2 A typ.							
nput	Power factor	230 VAC input	1.1 A typ.							
	Power factor	445.1/40 :		0.05 4	0.05 4	0.05 4	0.40 4	0.40 4		
	Leakage current	115 VAC input	0.35 mA	0.35 mA	0.35 mA	0.35 mA	0.40 mA	0.40 mA		
		230 VAC input	0.60 mA 32 A typ.	0.55 mA	0.60 mA	0.50 mA	0.60 mA	0.60 mA		
	Inrush current * (for a cold start at 25°)	11 1 1 1 250)								
	, 200 TAO IIIput		32 A typ.	0.5.4	7.4	1.5.4	0.0.4	004		
	Rated Output Curi		20 A	8.5 A	7 A	4.5 A	2.8 A	2.3 A		
	Voltage adjustmen	1	-10% to 10% (,		100 11		100 11		
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	70 mVp-p max.	100 mVp-p max.	70 mVp-p max.	120 mVp-p max.	90 mVp-p max.	120 mVp-p max.		
+	Input variation infl	•	0.5% max.			····carti				
	Load variation infl		1.0% max.							
Output	Temperature vari-	1								
	ation influence	240 VAC input	0.03%/°C max.							
		115 VAC input	740 ms typ.	310 ms typ.	360 ms typ.	350 ms typ.	320 ms typ.	380 ms typ.		
	Startup time *	230 VAC input	710 ms typ.	540 ms typ.	450 ms typ.	380 ms typ.	480 ms typ.	580 ms typ.		
		115 VAC input	23 ms typ.	37 ms typ.	36 ms typ.	34 ms typ.	36 ms typ.	34 ms typ.		
	Hold time *	230 VAC input	29 ms typ.	40 ms typ.	39 ms typ.	39 ms typ.	41 ms typ.	38 ms typ.		
	Overload protection	on	Yes, automatic reset							
	Overvoltage prote		Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage and turn on the input ag							
Addi- ional S	Overheat protection		No							
	Series operation		Yes (For up to 2 Power Supplies, external diodes are required.)							
	Parallel operation		No (However, backup operation is possible, external diodes are required.)							
tions	Remote sensing		No							
	Remote control		No							
	Output indicator		Yes (LED: Green)							
			,	,	nout terminals and o	output terminals)	current cutoff 20 m	Α		
Insula-	Withstand voltage		3 kVAC for 1 min. (between all input terminals and output terminals) current cutoff 20 mA 2 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA							
tion	Translation remage		1 kVAC for 1 min. (between all input terminals and PE terminals) current cutoff 20 mA							
	Insulation resistar	nce	1 kVAC for 1 min. (between all output terminals and PE terminals) current cutoff 20 mA 100 MΩ min. (between all output terminals and all input terminals/PE terminals) at 500 VDC							
			,		d according to the te	•	•			
	Ambient operating	g temperature		nsation or icing)	a according to the te	imperature. Here	or to berating our ve	on page 17		
	Storage temperatu	ıre	-40 to 85°C (with no condensation or icing)							
Envi-	Ambient operating	humidity	20% to 90% (Storage humidity: 10% to 95%)							
ronment	Vibration resistan	-	10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions							
	VIDIALION PESISTAN	ue .			litude for 1 h each i					
	Shock resistance		150 m/s ² , 3 tim	es each in ±X, ±\	, ±Z directions					
Reliabil-	MTBF		135,000 hrs mi	n.						
ity	Life expectancy *	•	10 years min.							
	Dimensions (W×H	×D)	Refer to Dimen	<i>sions</i> on pages 2	1 and 24.					
Con- struc-	Weight		400 g max.							
tion	Cooling fan		No							
	Degree of protecti	on								
	Harmonic current	emissions	Conforms to EN 61000-3-2, GB17625.1							
	ЕМІ	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
	LIVII	Radiated Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
	EMS		Conforms to EN	N 61204-3 high se	everity levels		1			
Stan- dards	Safety Standards		CSA: cURus C CCC: GB4943 Conformed Sta	.60950-1 (Recog 22.2 No60950-1 .ndards	nition) OVC II Pol2		70			
			EN: EN 60950-1 OVC II Pol2							
	Marine Standards		EN: EN 60950- No	1 OVC II Pol2						

^{*}Refer to Conditions on page 12.

		Power rating	150 W							
ltem Output voltage		5 V 12 V 15 V 24 V 36 V 48 V								
	- ala	115 VAC input	81% typ.	84% typ.	85% typ.	86% typ.	86% typ.	87% typ.		
Efficiency	<i>/</i> *	230 VAC input	82% typ.	85% typ.	86% typ.	87% typ.	87% typ.	88% typ.		
	Voltage range *	oltage range *		Single phase 90 to 132 VAC, Single phase 180 to 264 VAC, 254 to 373 VDC Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)						
-	Frequency *		50 /60 Hz (47 to	450 Hz)						
	Current *	115 VAC input	2.8 A typ.							
nput	Current *	230 VAC input	1.6 A typ.							
•	Power factor									
	Leakage current	115 VAC input	0.50 mA	0.50 mA	0.50 mA	0.50 mA	0.40 mA	0.50 mA		
		230 VAC input	0.75 mA	0.75 mA	0.75 mA	0.70 mA	0.60 mA	0.70 mA		
	Inrush current *	115 VAC input	32 A typ.							
	(for a cold start at 25°)	230 VAC input	32 A typ.		T					
-	Rated Output Curre		26 A	12.5 A	10 A	6.5 A	4.3 A	3.3 A		
-	Voltage adjustment		-10% to 10% (v	with V. ADJ)	T	T	T			
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	50 mVp-p max.	90 mVp-p max.	110 mVp-p max.	100 mVp-p max.	200 mVp-p max.	120 mVp-p max.		
-	Input variation influ	· ·	0.5% max.			1	1			
	Load variation influ		1.0% max.							
Output	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.							
	Startup time *	115 VAC input	770 ms typ.	730 ms typ.	740 ms typ.	770 ms typ.	730 ms typ.	760 ms typ.		
	Otal tap timo 4	230 VAC input	750 ms typ.	720 ms typ.	730 ms typ.	760 ms typ.	720 ms typ.	750 ms typ.		
	Hold time *	115 VAC input	29 ms typ.	24 ms typ.	27 ms typ.	23 ms typ.	23 ms typ.	21 ms typ.		
		230 VAC input	35 ms typ.	30 ms typ.	31 ms typ.	28 ms typ.	29 ms typ.	27 ms typ.		
-	Overload protection	n	Yes, automatic							
Ov	Overvoltage protection *		Yes, 115% or hig again)	gher of rated outpu	t voltage, power s	shut off (shut off the	e input voltage and	turn on the inpu		
Addi-	Overheat protection	n	No							
tional	Series operation		-	2 Power Supplies,	external diodes	are required.)				
func- tions	Parallel operation		, ,	backup operation			quired.)			
	Remote sensing		No		· · · · · · · · · · · · · · · · · · ·					
-	Remote control		No							
	Output indicator		Yes (LED: Gree	en)						
			3 kVAC for 1 m	in. (between all in	out terminals and	d output terminals) current cutoff 20	mA		
Insula-	Withstand voltage		2 kVAC for 1 m	in. (between all in	out terminals and	d PE terminals) cւ	irrent cutoff 20 mA	١		
tion				in. (between all ou	•					
	Insulation resistant	ce	,	etween all output		•				
	Ambient operating	·	-20 to 60°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (with no condensation or icing)							
Envi-	Storage temperatur		-40 to 85°C (with no condensation or icing)							
ronment	Ambient operating	-	20% to 90% (Storage humidity: 10% to 95%) 10 to 55 Hz, 0.375-mm half amplitude for 2 h each in X, Y, and Z directions							
	Vibration resistanc	e		.26-mm half ampli						
	Shock resistance		150 m/s ² , 3 time	es each in ±X, ±Y,	±Z directions					
Reliabil-	MTBF		135,000 hrs mir	n.						
ity	Life expectancy *		10 years min.							
C	Dimensions (W×H×	D)		sions on pages 21	and 24.					
Con- struc-	Weight		500 g max.							
tion	Cooling fan		No							
	Degree of protection		Canforms to EN	161000 0 0 000	700E 1					
-	Harmonic current e	1	Conforms to EN 61000-3-2, GB17625.1							
	EMI	Conducted Emissions	Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254 Conforms to EN 61204-3 Class B, EN 55011 Class B, GB9254							
	FMS	Radiated Emissions				55 D, UD9254				
Stan- dards	Safety Standards		Approved Stand	60950-1 (Recogn 22.2 No60950-1 ndards	-	2				
	Marine Standards		No	JIL						

^{*}Refer to Conditions on page 12.

		Power rating			200 W				
tem Output voltage		5 V 12 V 24 V 36 V 48 V							
		115 VAC input	81% typ.	85% typ.	88% typ.	89% typ.	88% typ.		
Efficiency	y *			87% typ.	88% typ.		90% typ.		
	Voltage range *	<u> </u>		81% typ. 87% typ. 88% typ. 90% typ. 90% typ. Single phase 90 to 132 VAC, Single phase 180 to 264 VAC, 254 to 373 VDC Select with the switch. (The L terminal for the DC input is the positive side and safety standards do not apply.) (Derating is required according to the input voltage. Refer to <i>Derating Curves</i> on page 18.)					
	Frequency *		50 /60 Hz (47 to 45	50 Hz)	·				
		115 VAC input	4 A typ.	•					
lanut	Current *	230 VAC input	2.3 A typ.						
Input	Power factor								
		115 VAC input	0.35 mA	0.25 mA	0.40 mA	0.20 mA	0.40 mA		
	Leakage current	230 VAC input	0.60 mA	0.50 mA	0.75 mA	0.45 mA	0.80 mA		
	Inrush current *	115 VAC input	16 A typ.	<u>'</u>	•	<u>'</u>	•		
	(for a cold start at 25°)	230 VAC input	32 A typ.						
	Rated Output Curre	ent	40 A	17 A	8.8 A	5.9 A	4.43 A		
	Voltage adjustmen	t range *	-10% to 10% (with	v. ADJ)			1		
	Ripple & Noise voltage *	100 to 120 VAC/200 to 240 VAC input	60 mVp-p max.	60 mVp-p max.	110 mVp-p max.	130 mVp-p max.	120 mVp-p max		
	Input variation influ	uence *	0.5% max.						
Output	Load variation influ	uence *	1.0% max.						
Juipul	Temperature variation influence	100 to 120 VAC/200 to 240 VAC input	0.03%/°C max.						
	Startup time *	115 VAC input	620 ms typ.	630 ms typ.	580 ms typ.	630 ms typ.	620 ms typ.		
		230 VAC input	600 ms typ.	610 ms typ.	550 ms typ.	600 ms typ.	600 ms typ.		
	Hold time *	115 VAC input	32 ms typ.	30 ms typ.	38 ms typ.	30 ms typ.	31 ms typ.		
		230 VAC input	37 ms typ.	35 ms typ.	45 ms typ.	37 ms typ.	37 ms typ.		
	Overload protectio	n	Yes, automatic res	et					
	Overvoltage protect	vervoltage protection *		er of rated output voltage	ge, power shut off (shut of	off the input voltage and	d turn on the input ag		
Addi-	Overheat protectio	n	No						
tional	Series operation		Yes (For up to 2 Po	ower Supplies, extern	nal diodes are required.)			
func- tions	Parallel operation		No (However, bac	kup operation is pos	sible, external diodes a	re required.)			
uons	Remote sensing		No						
	Remote control		No						
	Output indicator		Yes (LED: Green)						
			3 kVAC for 1 min.	(between all input ter	minals and output term	inals) current cutoff 20) mA		
Insula-	Withstand voltage		2 kVAC for 1 min.	(between all input ter	minals and PE terminal	s) current cutoff 20 m.	A		
tion			1 kVAC for 1 min.	(between all output to	erminals and PE termina	als) current cutoff 20 r	mA		
	Insulation resistan	ce	100 MΩ min. (betw	veen all output termin	als and all input termina	als/PE terminals) at 50	00 VDC		
	Ambient operating	temperature	−20 to 50°C (Derating is required according to the temperature. Refer to <i>Derating Curves</i> on page 17.) (wino condensation or icing)						
Envi-	Storage temperatu		,	no condensation or ic					
ronment	Ambient operating	humidity	` `	age humidity: 10% to	· · · · · · · · · · · · · · · · · · ·				
	Vibration resistance	e			or 2 h each in X, Y, and or 1 h each in X, Y, and				
	Shock resistance			each in ±X, ±Y, ±Z di		_ 455.10110			
Reliabil-	MTBF		135,000 hrs min.						
ity	Life expectancy *		10 years min.						
	Dimensions (W×H×	(D)		ns on pages 22 and 2	25.				
Con-	Weight	•	700 g max.	pg.so == a.id =	-				
struc-	Cooling fan		No 9 max.						
tion	Degree of protection	on							
	Harmonic current								
		Conducted Emissions		1204-3 Class A, EN 5	5011 Class A		<i>O</i>		
	ЕМІ	Radiated Emissions	Conforms to EN 61	1204-3 Class A, EN 5	5011 Class A	100			
Stan-	EMS		Conforms to EN 61	1204-3 high severity l	evels	1			
dards	Safety Standards		Conforms to EN 61204-3 high severity levels Approved Standards UL: cURus UL 60950-1 (Recognition) OVC II Pol2 CSA: cURus C22.2 No60950-1 Conformed Standards EN: EN 60950-1 OVC II Pol2						
	Marine Standards		No						
	SEMI		No			·			

^{*} Refer to Conditions on page 12.

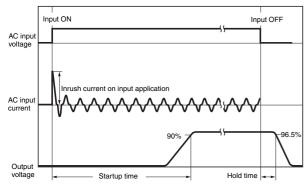
		Power rating			350 W			
Item Output voltage		5 V 12 V 24 V 36 V 48 V						
		115 VAC input	77% typ.	83% typ.	86% typ.	87% typ.	87% typ.	
fficiency	y *	230 VAC input	78% typ.	85% typ.	88% typ.	88% typ.	88% typ.	
	Voltage range * Frequency *		Single phase 90 to	132 VAC , Single ph	ase 180 to 264 VAC	, 254 to 373 VDC Se	lect with the switch	
						y standards do not ap <i>Derating Curves</i> on pa		
			50 /60 Hz (47 to 45		put voltage. Helef to	Derailing Curves on po	age 10.)	
	rrequericy *	11E VAC input	,	50 HZ)				
	Current *	115 VAC input 230 VAC input	6.4 A typ. 3.5 A typ.					
nput	Power factor	230 VAC IIIput	5.5 A typ.					
	rower factor	115 VAC input	0.40 mA	0.40 mA	0.40 mA	0.40 mA	0.40 mA	
	Leakage current	230 VAC input	0.75 mA	0.40 mA	0.75 mA	0.40 mA	0.80 mA	
	In march account to	115 VAC input	16 A typ.	0.00 HIA	0.75 HIA	0.00 11174	0.00 1117	
	Inrush current * (for a cold start at 25°)	230 VAC input	32 A typ.					
	Rated Output Curre	•	60 A	29 A	14.6 A	9.7 A	7.32 A	
	Voltage adjustment		-10% to 10% (with	_	11.071	0.7 71	7.027	
	Ripple & Noise	100 to 120 VAC/200 to	,	,				
	voltage *	240 VAC input	110 mVp-p max.	130 mVp-p max.	120 mVp-p max.	180 mVp-p max.	180 mVp-p max	
	Input variation influ	uence *	0.5% max.		•			
0	Load variation influ	ience *	2.0% max.	1.0% max.				
Output	Temperature vari-	100 to 120 VAC/200 to	0.03%/°C max.					
	ation influence	240 VAC input			T-			
	Startup time *	115 VAC input	610 ms typ.	620 ms typ.	580 ms typ.	610 ms typ.	610 ms typ.	
		230 VAC input	570 ms typ.	590 ms typ.	560 ms typ.	590 ms typ.	590 ms typ.	
	Hold time *	115 VAC input	25 ms typ.	18 ms typ.	17 ms typ.	19 ms typ.	19 ms typ.	
		230 VAC input	31 ms typ.	25 ms typ.	23 ms typ.	25 ms typ.	24 ms typ.	
	Overload protection	n	Yes, automatic res					
	Overvoltage protec	tion *	Yes, 115% or higher of rated output voltage, power shut off (shut off the input voltage				e and turn on the in	
	Overheat protection		again) Yes, power shut off (shut off the input voltage and turn on the input again) (Overheat protection when the					
			Vac nowar chut of	f (shut off the input w	oltage and turn on the	input again) (Overher	at protection when	
	Overheat protection	n		if (shut off the input von abnormal condition)	oltage and turn on the	input again) (Overhea	at protection when	
tional	Overheat protection Series operation	n	cooling fan is in ar	abnormal condition)	oltage and turn on the		at protection when	
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tional func-	Series operation Parallel operation	n	cooling fan is in an Yes (For up to 2 P No (However, bac	abnormal condition) ower Supplies, exteri	nal diodes are require	d.)	at protection when	
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tional func-	Series operation Parallel operation Remote sensing Remote control	n	cooling fan is in ar Yes (For up to 2 P No (However, bac No No Yes (LED: Green) 3 kVAC for 1 min.	a abnormal condition) ower Supplies, exteri skup operation is poss (between all input ter	nal diodes are require sible, external diodes minals and output ter	d.) are required.)	20 mA	
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^{*}Refer to Conditions on page 12.

Conditions

Efficiency		The value is given for the rated output voltage and rated output current.			
	Voltage range	Although some inverters give 50/60 Hz as the output frequency, do not use an inverter output as the pow source for the Power Supply. Doing so may result in smoking or burning due to internal temperature			
Input	Frequency	increases in the Power Supply. If you connect a UPS to the input, do not connect one with a square wave output.			
	Current	The value is given for the rated output voltage and rated output current.			
	Inrush current (for a cold start at 25°C)	The value is given for a cold start at 25°C. Refer to following for details.			
	Voltage adjustment range	If the output voltage adjuster (V. ADJ) is turned, the voltage will increase by 10% or more over the voltage adjustment range. When adjusting the output voltage, confirm the actual output voltage from the Power Supply and be sure that load is not damaged.			
	Ripple & Noise voltage	The value is given for the rated output voltage and rated output current. The value is for an ambient operating temperature of 25°C.			
Output	Input variation influence	This is the maximum variation in the output voltage when the input voltage is gradually changed within t allowable input voltage range at the rated output voltage and rated output current.			
	Load variation influence	This is the value when the output current is changed from 0 A to the rated output current while the input voltage is within the allowable input voltage.			
	Startup time	The value is given for the rated output voltage and rated output current. The value is given for a cold start at 25°C. Refer to following for details.			
	Hold time	The value is given for the rated output voltage and rated output current. Refer to following for details.			
Additional functions	Overvoltage protection	Refer to Overvoltage Protection on page 19 for information on resetting the input power.			
Reliability	Life expectancy	Refer to Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance on page 36 for details.			

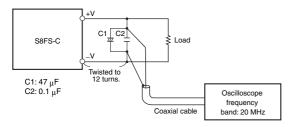
Inrush Current, Startup Time, and Output Hold Time



Note: Twice the normal input current will flow for a redundant system. Sufficiently check the fusing characteristics of fuses and the operating characteristics of breakers and select fuses and breakers so that external fuses will not burn out or breakers will not operate due to inrush current.

Ripple Noise Voltage

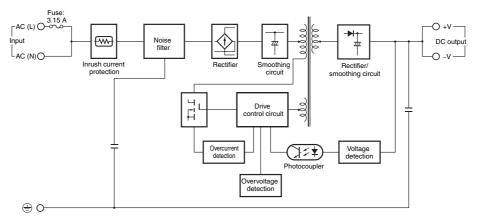
The specified standard for the ripple voltage noise was measured with the following measurement circuit.

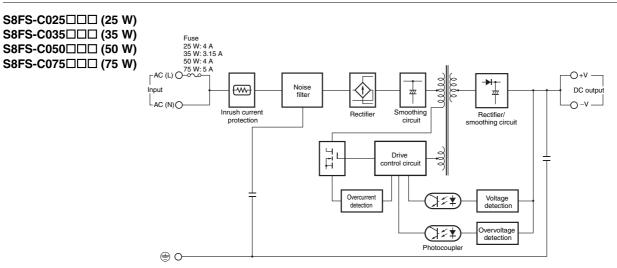


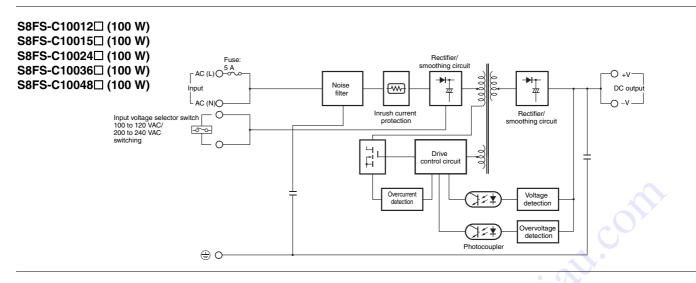
Connections

Block Diagrams

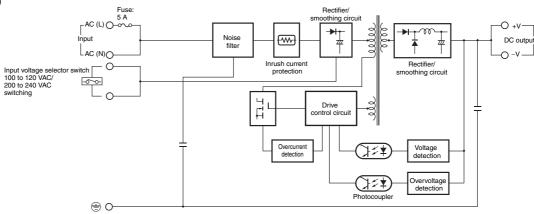
S8FS-C015□□J (15 W)



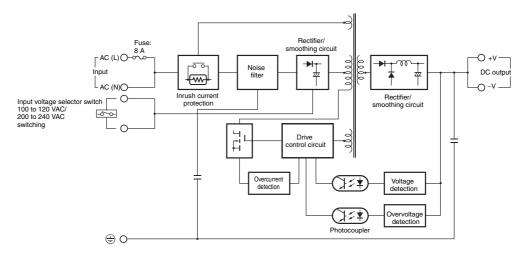




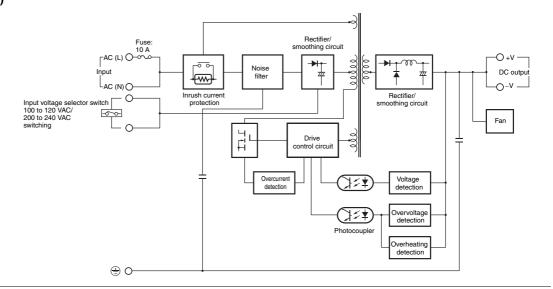
S8FS-C10005□ (100 W) S8FS-C150□□□ (150 W)



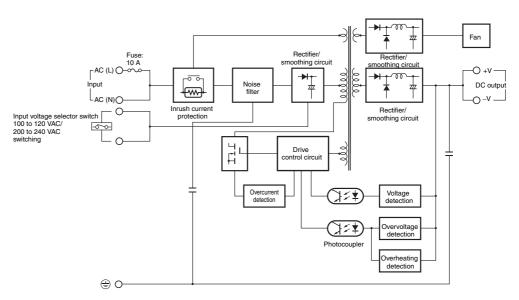
S8FS-C200□□□ (200 W)



S8FS-C35024□ (350 W)



S8FS-C35005□ (350 W) S8FS-C35012□ (350 W) S8FS-C35036□ (350 W) S8FS-C35048□ (350 W)



Coditetiliaian

Construction and Nomenclature

Nomenclature

25-W, 35-W, 50-W, 15-W Models 100-W and 150-W Models 200-W and 350-W Models and 75-W Models OMBON SEPS POWER SUPPLY ION SSFS POWER SUPPLY عاصاصات اعاهاهاهاهاهاها (5) (5 2 (3) S8FS-C025□□ S8FS-C050□□ S8FS-C100□□ S8ES-C200□□ S8FS-C035□□ S8FS-C075□□ S8FS-C150□□ S8FS-C350□□ ION SEFS FOWER SUFFLY (6) 2 2 3 -(1) S8FS-C025□□J S8FS-C015□□J S8FS-C050□□J S8FS-C100□□J S8FS-C200□□J S8FS-C035□□J S8FS-C075□□J S8FS-C150□□J S8FS-C350 III CHECK INPUT VOLTAGE SELECTOR SWITCH BEFORE POWER ON INPUT:100-120VAC (输入) 200-240VAC (输入) 200-240VAC (输入) 6

No.	Name	Function
1	Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth Terminal (PE)	Connect the ground line to this terminal. *2
3	DC output terminals (-V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lit while the DC output is ON.
5	Output voltage adjuster (V. ADJ)	Use to adjust the output voltage.
6	Input voltage selector switch	Used to switch the input voltage. *3, *4

^{*1.} The fuse is located on the (L) side. It is not user replaceable. For a DC power input, connect the positive voltage to the L terminal.

^{*2.} This is the protective earth terminal specified in the safety standards. Always ground this terminal.

^{*3.} The 100-W, 150-W, 200-W, and 350-W models only.

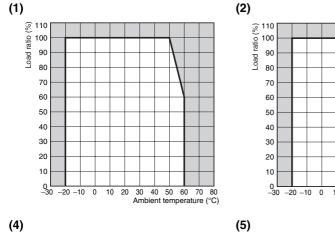
^{*4.} Refer to Input Voltage Selector Switch in Safety Precautions on page 33.

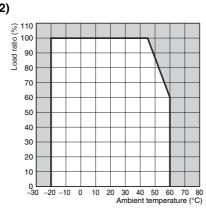
Engineering Data

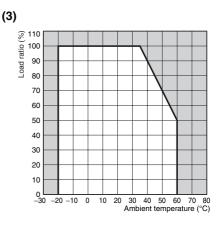
Derating Curves

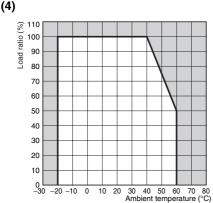
Derating for Ambient Temperatures

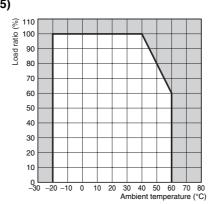
Power rating	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	250 W
Output voltage	15 W	25 W	35 W	50 W	/5 W	100 W	150 W	200 W	350 W
5 V		(2)			(3)	(4)	(5)	(7)	(1)
12 V	(1)	\	(1)	(1)) (1)		(1)	(6)	(1)
15 V	(1) (1)	(1)	(1)	(1)					
24 V						(2)			
36 V								(6)	(1)
48 V				(1)	(1)				

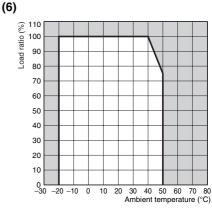


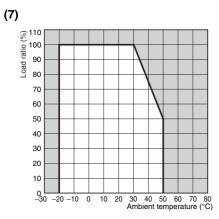










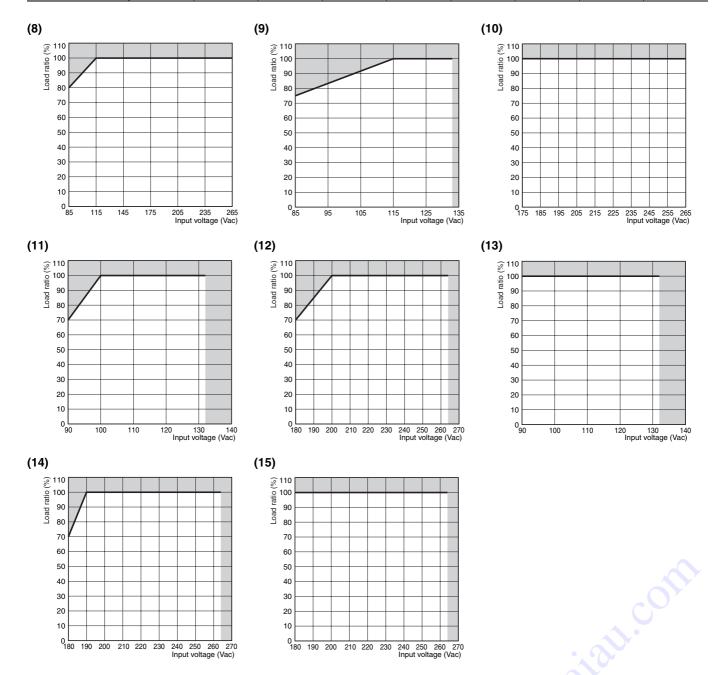


Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

S8FS-C

Derating for Input Voltages

Power rating Output voltage	15 W	25 W	35 W	50 W	75 W	100 W	150 W	200 W	350 W
5 V				_				(11) (14)	(11) (15)
12 V	(8)	(8)	(8)	(0)	(0)		(44) (40)	(11) (14)	(11) (13)
15 V	(0)	(8)		(8)	(8)	(9) (10)			
24 V						(9) (10)	(11) (12)		
36 V								(13) (15)	(11) (15)
48 V				(8)	(8)				

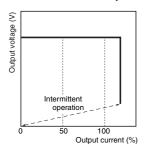


Note: The internal parts may occasionally deteriorate or be damaged. Use the standard mounting method only. Do not use the Power Supply in the area outside the derating curve.

Overload Protection

The load and the Power Supply are automatically protected from short-circuit currents and overcurrent damage by this function. Overload protection is activated if the output current rises above 105% of the rated current.

When the output current returns within the rated range, the overload protection is automatically cleared.



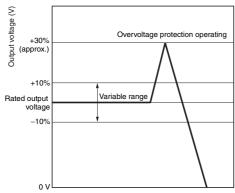
The values shown in the above diagrams are for reference only.

Note: 1. If the Power Supply has been short-circuited or supplied with an overcurrent longer than 10 seconds, the internal parts of the Power Supply may occasionally deteriorate or be damaged.

Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications.

Overvoltage Protection

Consider the possibility of an overvoltage and design the system so that the load will not be subjected to an excessive voltage even if the feedback circuit in the Power Supply fails. When an excessive voltage that is approximately 130% of the rated voltage or more is output, the output voltage is shut OFF, preventing damage to the load due to overvoltage. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.



The values shown in the above diagrams are for reference only.

Note: Do not turn ON the power again until the cause of the overvoltage has been removed.

Overheat Protection (S8FS-C350□□□ Only)

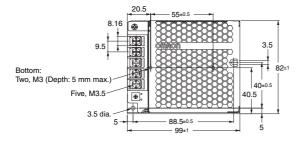
If the internal temperature rises excessively as a result of fan failure or any other reason, the overheat protection circuit will operate to protect internal elements. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.

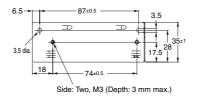
Dimensions (Unit: mm)

Power Supplies Models with Terminal Block Facing Upward

S8FS-C025□□ (25 W)





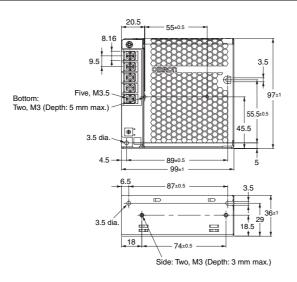


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 40±0.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.

S8FS-C035□□ (35 W)



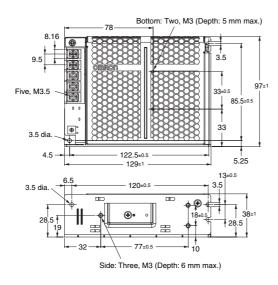


Panel mounting hole dimensions

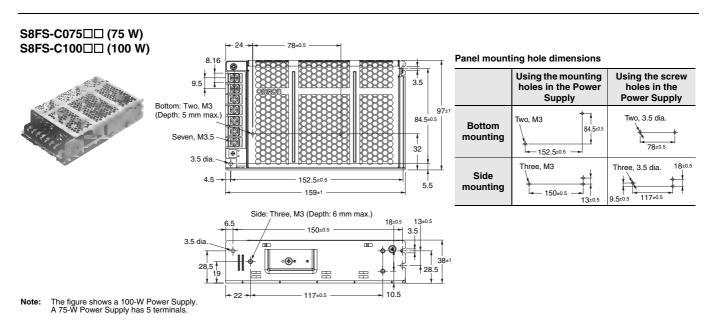
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 55,560.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.

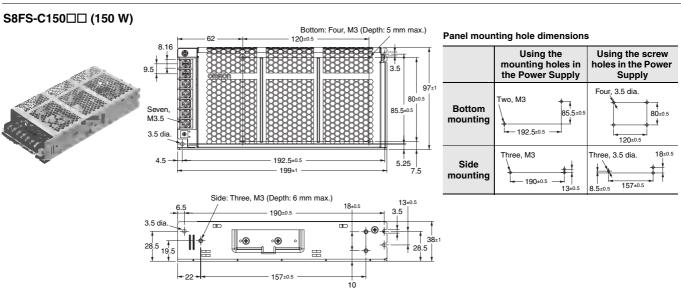
S8FS-C050□□ (50 W)



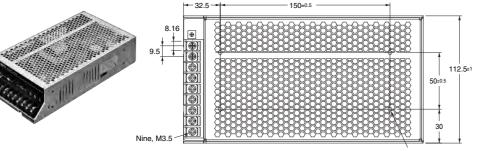


Patier mounting note difficults				
	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply		
Bottom mounting	Two, M3 85.5±0.5	Two, 3.5 dia.		
Side mounting	Three, M3	Three, 3.5 dia. 18±0.5		





S8FS-C200□□ (200 W)



Panel mounting hole dimensions

	Using the screw holes in the Power Supply		
Bottom mounting	Four, 4.5 dia.		
Side mounting	Four, 4.5 dia.		

Bottom: Four, M4 (Depth: 5 mm max.) 212±1 • •

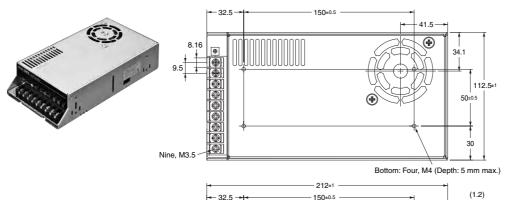
Side: Four, M4 (Depth: 6 mm max.)

Side: Four, M4 (Depth: 6 mm max.) (12.5)

(12.5)

•

S8FS-C350□□ (350 W)



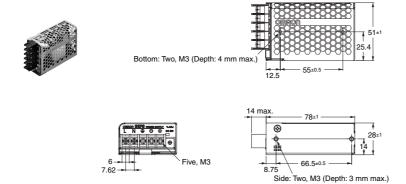
•

0 4

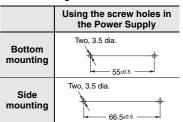
	J
	Using the screw holes in the Power Supply
Bottom mounting	Four, 4.5 dia.
Side mounting	Four, 4.5 dia. 25±0.5

Models with Terminal Block Facing Forward

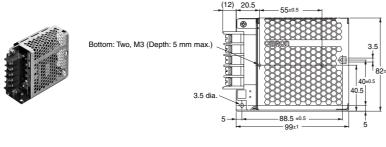
S8FS-C015□□J (15 W)



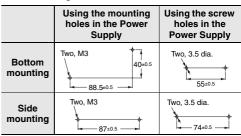
Panel mounting hole dimensions

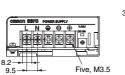


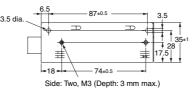
S8FS-C025□□J (25 W)



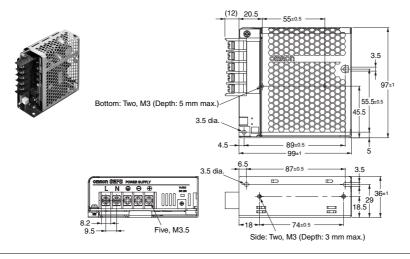
Panel mounting hole dimensions





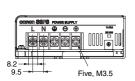


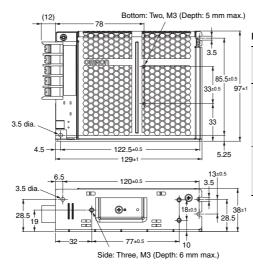
S8FS-C035□□J (35 W)



	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply
Bottom mounting	Two, M3 55.5±0.5	Two, 3.5 dia.
Side mounting	Two, M3	Two, 3.5 dia.

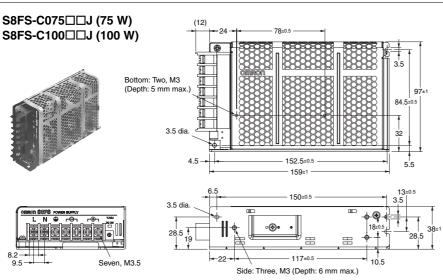
S8FS-C050□□J (50 W)





Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply	
Bottom mounting	Two, M3 85.5±0.5	Two, 3.5 dia.	
Side mounting	Three, M3	Three, 3.5 dia. 18±0.5 9±0.5 77±0.5	

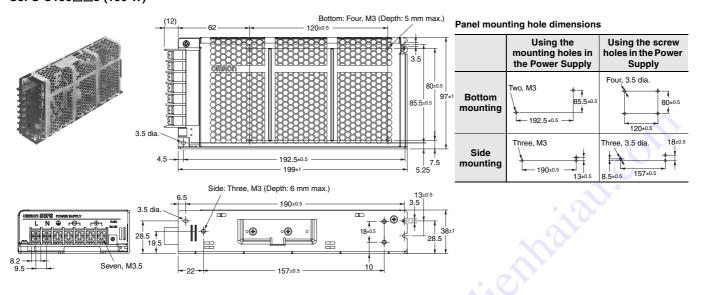


Panel mounting hole dimensions

	Using the mounting holes in the Power Supply	Using the screw holes in the Power Supply	
Bottom mounting	Two, M3 84.5±0.5	Two, 3.5 dia.	
Side mounting	Three, M3	Three, 3.5 dia. 18±0.5 9.5±0.5 117±0.5	

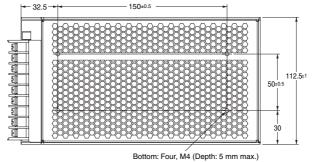
Note: The figure shows a 100-W Power Supply. A 75-W Power Supply has 5 terminals.

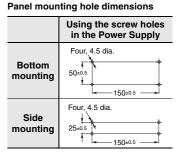
S8FS-C150□□J (150 W)

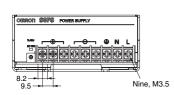


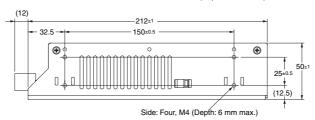
S8FS-C200□□J (200 W)











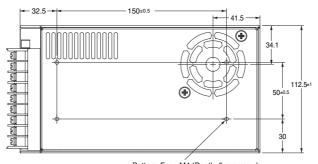
S8FS-C350□□J (350 W)

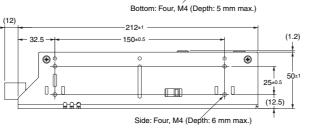


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Nine, M3.5

6000000





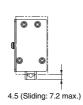
	Using the screw holes in the Power Supply	
Bottom mounting	Four, 4.5 dia.	
Side mounting	Four, 4.5 dia. 25±0.5	

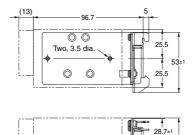
Mounting Brackets (Order Separately)

Power rating	Mounting direction	Model		
15 W		S82Y-FSC015DIN		
25 W		S82Y-FSC025DIN		
35 W		S82Y-FSC050DIN		
50 W		5821-FSC050DIN		
75 W	DIN Rail			
100 W		S82Y-FSC150DIN		
150 W				
200 W		S82Y-FSC350DIN		
350 W				
15 W		S82Y-FSC015DIN-S		
25 W		S82Y-FSC025DIN-S		
35 W		S82Y-FSC035DIN-S		
50 W	Bottom-mounting to DIN Rail	S82Y-FSC050DIN-S		
75 W	- Birt Haii	S82Y-FSC100DIN-S		
100 W		5821-FSC100DIN-S		
150 W		S82Y-FSC150DIN-S		
200 W	Pottom mounting with L brookets	SOOV ESCREDE (4 brooksts)		
350 W	Bottom-mounting with L-brackets	S82Y-FSC350B (4 brackets)		

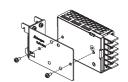
S82Y-FSC015DIN





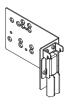


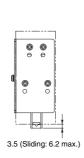
Mounting Method

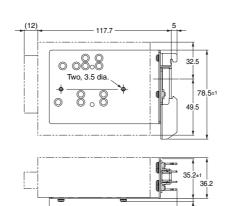


Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to
0.59 N·m for M3 screws

S82Y-FSC025DIN

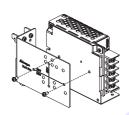






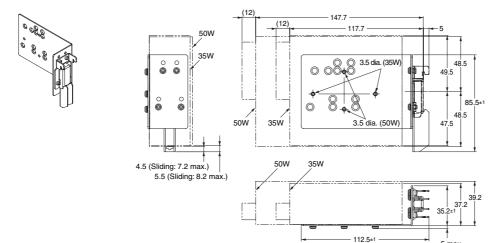
112.5±1

Mounting Method

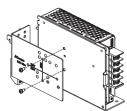


Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque: 0.48 to
0.59 N·m for M3 screws

S82Y-FSC050DIN

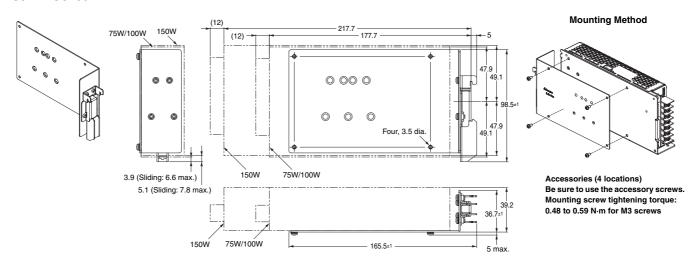


Mounting Method

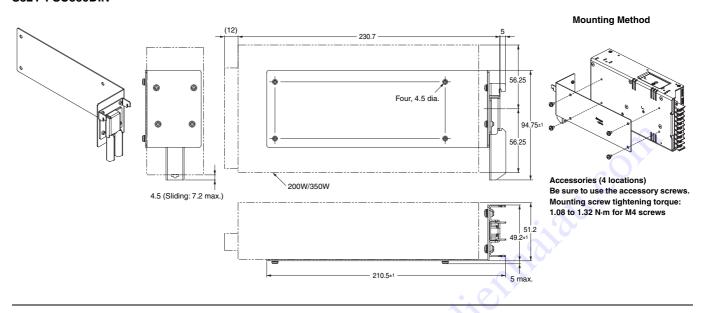


Accessories (2 locations)
Be sure to use the accessory screws.
Mounting screw tightening torque:
0.48 to 0.59 N·m for M3 screws

S82Y-FSC150DIN

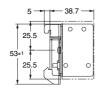


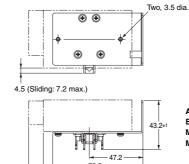
S82Y-FSC350DIN



S82Y-FSC015DIN-S

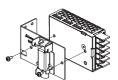






(13) -

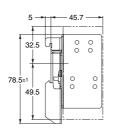
Mounting Method

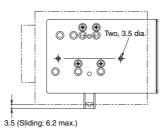


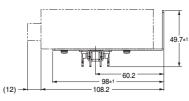
Accessories (2 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC025DIN-S

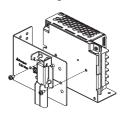








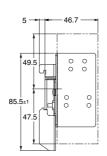
Mounting Method

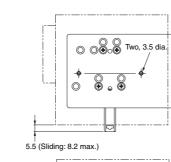


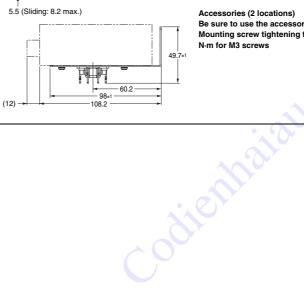
Accessories (2 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC035DIN-S

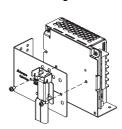








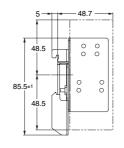
Mounting Method

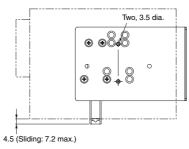


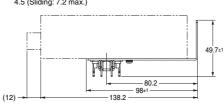
Accessories (2 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC050DIN-S

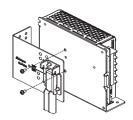






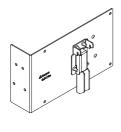


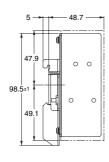
Mounting Method

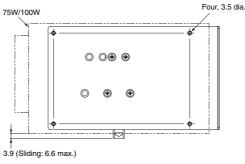


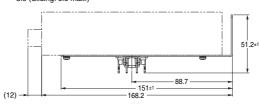
Accessories (2 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC100DIN-S

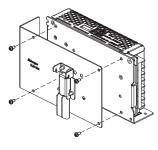






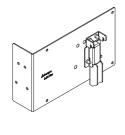


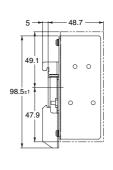
Mounting Method

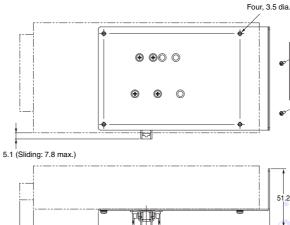


Accessories (4 locations) Be sure to use the accessory screws. Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

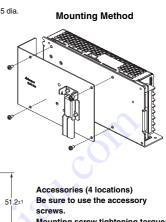
S82Y-FSC150DIN-S





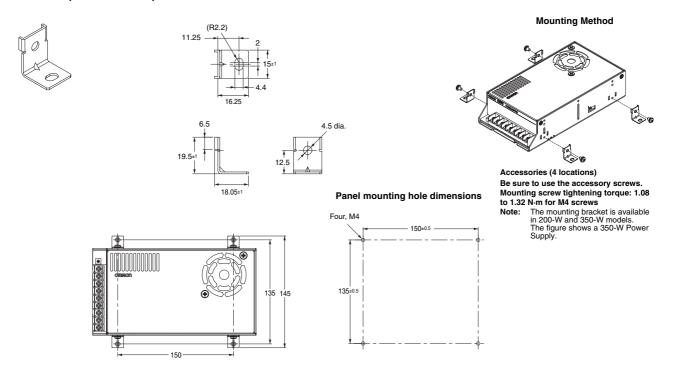


-108.7 - 151±1



Mounting screw tightening torque: 0.48 to 0.59 N·m for M3 screws

S82Y-FSC350B (Four Brackets)



For Users of S8JC DIN Rail-mounting Power Supplies

If you are using a DIN Rail-mounting S8JC-series Power Supply, you can replace it with an S8FS-C-series Power Supply with Forward-facing Terminal Block and a DIN Rail Mounting Bracket.

Table of Corresponding S8JC Power Supplies and S8FS-C□J Power Supplies with DIN Rail Mounting Brackets

Power rating	S8JC-Z *2	S8JC-ZS		S8FS-C Power Supply		DIN Rail-mounting Bracket *1
	S8JC-Z01505CD	S8JC-ZS01505CD-AC2	\Rightarrow	S8FS-C01505J		
15 W	S8JC-Z01512CD	S8JC-ZS01512CD-AC2	\Rightarrow	S8FS-C01512J	+	S82Y-FSC015DIN
	S8JC-Z01524CD	S8JC-ZS01524CD-AC2	\Rightarrow	S8FS-C01524J		
	S8JC-Z03505CD	S8JC-ZS03505CD-AC2	\Rightarrow	S8FS-C03505J		
35 W	S8JC-Z03512CD	S8JC-ZS03512CD-AC2	\Rightarrow	S8FS-C03512J	+	S82Y-FSC050DIN
	S8JC-Z03524CD	S8JC-ZS03524CD-AC2	\Rightarrow	S8FS-C03524J		
	S8JC-Z05005CD	S8JC-ZS05005CD-AC2	\Rightarrow	S8FS-C05005J		
50 W	S8JC-Z05012CD	S8JC-ZS05012CD-AC2	\Rightarrow	S8FS-C05012J	١.	S82Y-FSC050DIN
50 W	S8JC-Z05024CD	S8JC-ZS05024CD-AC2	\Rightarrow	S8FS-C05024J	+	3021-F3C030DIN
	S8JC-Z05048CD		\Rightarrow	S8FS-C05048J		
	S8JC-Z10005CD	S8JC-ZS10005CD-AC2	\Rightarrow	S8FS-C10005J		
100 W	S8JC-Z10012CD	S8JC-ZS10012CD-AC2	\Rightarrow	S8FS-C10012J	١.	S82Y-FSC150DIN
100 W	S8JC-Z10024CD	S8JC-ZS10024CD-AC2	\Rightarrow	S8FS-C10024J	+	3021-F3C130DIN
	S8JC-Z10048CD		\Rightarrow	S8FS-C10048J		
	S8JC-Z15005CD	S8JC-ZS15005CD-AC2	\Rightarrow	S8FS-C15005J		
150 W	S8JC-Z15012CD	S8JC-ZS15012CD-AC2	\Rightarrow	S8FS-C15012J		S82Y-FSC150DIN
150 W	S8JC-Z15024CD	S8JC-ZS15024CD-AC2	\Rightarrow	S8FS-C15024J	+	3021-F3C130DIN
	S8JC-Z15048CD		\Rightarrow	S8FS-C15048J		
	S8JC-Z35005CD	S8JC-ZS35005CD-AC2	\Rightarrow	S8FS-C35005J		
350 W	S8JC-Z35012CD	S8JC-ZS35012CD-AC2	\Rightarrow	S8FS-C35012J	+	S82Y-FSC350DIN
	S8JC-Z35024CD	S8JC-ZS35024CD-AC2	\Rightarrow	S8FS-C35024J		

^{*1.} To mount an S8FS-series Power Supply to a DIN Rail, purchase a DIN Rail-mounting Bracket separately from the Power Supply.



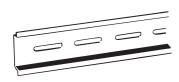
^{*2.} Consult with your OMRON representative if you use a 15-W or 35-W S8JC-Z Power Supply with a 48-V output voltage.

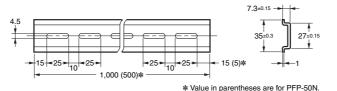
DIN Rail (Order Separately)

Note: All units are in millimeters unless otherwise indicated.

Mounting Rail

(Material: Aluminum)

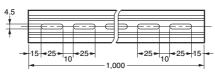


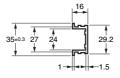




Mounting Rail (Material: Aluminum)



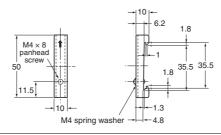






End Plate







- Note: 1. If there is a possibility that the Power Supply will be subject to vibration or shock, use a steel DIN Rail. Otherwise, metallic filings may result from aluminum abrasion.
 - 2. If there is a possibility of the Power Supply sliding sideways, place an End Plate (PFP-M) on each end of the Power Supply.

Terminal Cover (Order Separately)

Terminal block direction	Power rating	Applicable models	Terminal Cover model number
	25-W	S8FS-C025□□	
	35-W	S8FS-C035□□	S82Y-FSC-C5
	50-W	S8FS-C050□□	
Models with terminal block	75-W	S8FS-C075□□	
facing upward	100-W	S8FS-C100□□	S82Y-FSC-C7
	150-W	S8FS-C150□□	5021-F50-07
	200-W S8FS-C200□□	S82Y-FSC-C9	
	350-W	S8FS-C350□□	3021-730-09
	15-W	S8FS-C015□□J	S82Y-FSC-C5MF
	25-W	S8FS-C025□□J	S82Y-FSC-C5F S82Y-FSC-C7F S82Y-FSC-C9F
	35-W	S8FS-C035□□J	
Models with terminal block facing forward	50-W	S8FS-C050□□J	
	75-W	S8FS-C075□□J	
ading formata	100-W	S8FS-C100□□J	S82Y-FSC-C7F
	150-W	S8FS-C150□□J	3021-130-071
	200-W	S8FS-C200□□J	S82Y-FSC-C9F
	350-W	S8FS-C350□□J	

Safety Precautions

Refer to Safety Precautions for All Power Supplies.

Warning Indications

CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.
Precautions for Safe Use	Supplementary comments on what to do or avoid doing, to use the product safely.
Precautions for Correct Use	Supplementary comments on what to do or avoid doing, to prevent failure to operate, malfunction or undesirable effect on product performance.

Meaning of Product Safety Symbols

A	Indicates the possibility of electric shock under specific conditions.
	Indicates the possibility of injuries by high temperature under specific conditions.
	Indicates the possibility of injuries, such as electric shock by disassembling the device, prohibiting disassembly.
0	Indicates the instructions of unspecified general action.

⚠ CAUTION

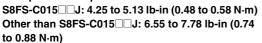
Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product or touch the interior of the Product.



Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.



Fire may occasionally occur. Tighten terminal screws to the specified torque.





Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied.



Minor electric shock, fire, or Product failure may occasionally occur. Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.



Precautions for Safe Use

Ambient Operating and Storage Environments

- Store the Power Supply at a temperature of –40 to 85°C and a humidity of 10% to 95%.
- The internal parts may occasionally deteriorate or be damaged.
 Use the standard mounting method only. Do not use the Power Supply outside the derating range.
- Use the Power Supply at a humidity of 20% to 90%.
- Do not use the Power Supply in locations subject to direct sunlight.
- Do not use the Power Supply in locations where liquids, foreign matter, or corrosive gases may enter the interior of the Power Supplies.

Installation Environment

- Do not use the Power Supply in locations subject to shocks or vibrations. Install the Power Supply away from contactors and other parts and devices that are sources of vibration.
- Install the Power Supply well away from any sources of strong, high-frequency noise and surge.

Input Voltage Selector Switch

 For 100-W or higher models, the input voltage is factory-set to 200 to 240 V.

To use an input voltage of 100 to 120 VAC, change the input voltage selector switch to the 100 to 120 VAC setting. To use a DC input, set the input voltage selector switch to the 200 to 240 VAC setting.

 Minor electric shock may occasionally occur. Do not operate the input voltage selector switch while power is being supplied.

Mounting

- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Power Supply.
- For models other than the S8FS-C350□□□, be sure to allow convection in the atmosphere around devices when mounting. Do not use the Power Supply in locations where the ambient temperature exceeds the range of the derating curve.
- For the S8FS-C350 ——: Forced air cooling with a fan is used. Do
 not allow the ventilation holes to be blocked. The effectiveness of
 cooling would be reduced.
- The internal parts may occasionally deteriorate or be damaged.
 Use the standard mounting method only. Do not use the Power Supply outside the derating range.
- If you mount the Power Supply by using the screw holes provided on the chassis, the screws should preferably not penetrate beyond the exterior by more than 3 mm inside the Power Supply. If you use screws that are longer than this, make sure that they do not penetrate beyond the depth given in the dimensional diagram. Use the following tightening torque.

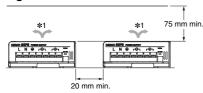
0.48 to 0.59 N·m for M3 screws 1.08 to 1.32 N·m for M4 screws

- When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Power Supplies.
- The internal parts may occasionally deteriorate or be damaged due to adverse heat radiation. Do not loosen the screws on the Power Supplies.

Mounting

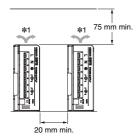
The standard mounting pattern is shown below.

Mounting Pattern A



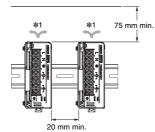
The above figure shows a model with the terminal block facing upward.

Mounting Pattern B



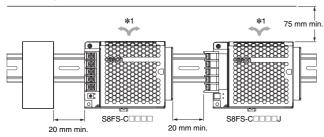
The above figure shows a model with the terminal block facing upward.

Mounting Pattern C *2



The above figure shows a model with the terminal block facing forward.

Mounting Pattern D *2

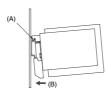


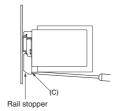
To mount the Power Supply to a DIN Rail, hook portion (A) of the Power Supply onto the DIN Rail and press the Power Supply in direction (B) until you hear it lock into place. Make sure that the catch on the Mounting Bracket is engaged with the DIN Rail.

To dismount the Power Supply, pull down portion (C) with a flat-blade screwdriver and pull out the Power Supply.

*1. Air flow

*2. For mounting patterns C and D, a separately sold Mounting Bracket is used to mount the Power Supplies to DIN Rail. Refer to Mounting Brackets (Order Separately) on page 26 for the separately sold Mounting Brackets.





Wiring

- Connect the ground completely.
 A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if the ground is not connected completely.
- Minor fire may possibly occur. Ensure that input and output terminals are wired correctly.
- Do not apply more than 75 N force to the terminal block when tightening it.
- Be sure to remove the sheet covering the Power Supply for machining before power-ON so that it does not interfere with heat dissipation.
- Use the following material for the wires to be connected to the S8FS-C to prevent smoking or ignition caused by abnormal loads.

Recommended Wire Gauges

Terminals	Model	Recommended Wire Gauges
	S8FS-C015□□J	AWG14 to 22
Input	S8FS-C025□□□ to S8FS-C100□□□	AWG12 to 20
прис	S8FS-C150□□□ or S8FS-C200□□□	AWG12 to 16
	S8FS-C350□□□	AWG12
	S8FS-C015□□J	AWG14 to 18
	S8FS-C02512 to S8FS-C02524□	
	S8FS-C03515 to S8FS-C03524□	AWG12 to 20
	S8FS-C05024 to S8FS-C05048□	
	S8FS-C02505 or S8FS-C03512□	
	S8FS-C05012 to S8FS-C05015□	
	S8FS-C07515 to S8FS-C07548□	AWG12 to 16
Output	S8FS-C10024 to S8FS-C10048□	
	S8FS-C15036 to S8FS-C15048□	
	S8FS-C03505 or S8FS-C05005□	
	S8FS-C07505 to S8FS-C07512□	
	S8FS-C10005 to S8FS-C10015□	AWG12
	S8FS-C15005 to S8FS-C15024□	7111 5112
	S8FS-C200□□□ or S8FS-C350□□□	
Protective	S8FS-C015□□J	AWG14
earth terminal	S8FS-C025□□□ to S8FS-C350□□□	AWG12 to 14

Note: The current capacity for the output terminals on the S8FS-C025□□□ to S8FS-C350□□□ is 25 A for each terminal. Make sure to use multiple terminals together if the current flow is higher than the current capacity for each terminal.

Overload Protection

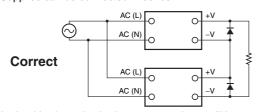
- If the Power Supply has been short-circuited or supplied with an overcurrent longer than 10 seconds, the internal parts of the Power Supply may occasionally deteriorate or be damaged.
- Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications.

Output Voltage Adjuster (V. ADJ)

- The output voltage adjuster (V. ADJ) may possibly be damaged if it is turned with unnecessary force. Do not turn the adjuster with excessive force.
- After completing output voltage adjustment, be sure that the output capacity or output current does not exceed the rated output capacity or rated output current.

Series Operation

Two Power Supplies can be connected in series.



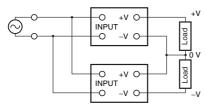
Note: 1. If the load is short-circuited, a reverse voltage will be generated inside the Power Supply. If this occurs the Power Supply may possibly deteriorate or be damaged. Always connect a diode as shown in the figure. Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

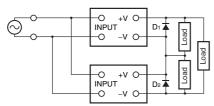
Although Power Supplies having different specifications can be connected in series, the current flowing through the load must not exceed the smaller rated output current.

Making Positive/Negative Outputs

The outputs are floating outputs (i.e., the primary circuits and secondary circuits are separated). You can therefore make positive and negative outputs by using two Power Supplies. You can make positive and negative outputs with any of the models. If positive and negative outputs are used, connect Power Supplies of the same model as shown in the following figure. (Combinations with different output capacities or output voltages can be made. However, use the lower of the two maximum rated output currents as the current to the loads.)



 Depending on the model, internal circuits may be damaged due to startup failure when the power is turned ON if loads such as a servomotor or operational amplifier operate in series. Therefore, connect bypass diodes (D₁, D₂) as shown in the following figure.

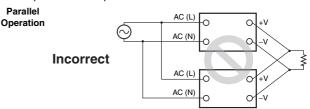


· Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

Parallel Operation

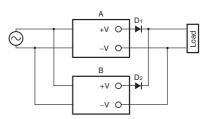
Parallel operation is not possible.



Backup Operation

Backup operation is possible if you use two Power Supplies of the same model.

Connect diodes as shown in the following figure for backup operation.



Select a diode having the following ratings.

Туре	Schottky Barrier diode
Dielectric strength (VRRM)	Twice the rated output voltage or above
Forward current (I _F)	Twice the rated output current or above

- The output voltages of Power Supplies A and B output must be set higher only by a value equivalent to the drop in forward voltages (V_F) of diodes D₁ and D₂.
- Power loss occurs equivalent to the Power Supply output current (Iουτ) times the diode forward voltage (VF), and heat is generated.
 The diode must be cooled to ensure that its temperature is kept at or below the value indicated in the diode catalog.
- There will be a power loss caused by load power and diodes. Be sure that this total power loss does not exceed the rated output power (rated output voltage times rated output current) of each Power Supply.

In Case There Is No Output Voltage

There is a possibility that functions such as overcurrent protection, over-voltage protection or overheating protection are functioning. The internal protection circuit may operate if a large amount of surge voltage such as a lightening surge occurs while turning ON the Power Supply.

In case there is no output voltage, please check the following points before contacting us:

- Checking overload protection status:
 Check whether the load is in overload status or is short-circuited.
 Remove wires to load when checking.
- Checking overvoltage or internal protection:
 Turn the power supply OFF once, and leave it OFF for at least 3 minutes. Then turn it ON again to see if this clears the condition.
- Check overheating protection (350-W model):
 Switch off the input power supply and switch back on after allowing sufficient time for cooling.

Charging Batteries

If you connect a battery at the load, install overcurrent control and overvoltage protection circuits.

S8FS-C

Period and Terms of Warranty

Warranty Period

The Power Supply warranty is valid for a period of three years from the date of shipment from the factory.

Terms of Warranty

The warranty is valid only for the following operating conditions.

- 1. Average ambient operating temperature of the Power Supply: 40°C max.
- 2. Average load rate: 80% max.
- 3. Mounting method: Standard mounting
- * The maximum ratings must be within the derating curve.

If the Power Supply fails for reasons attributable to OMRON within the above warranty period, OMRON will repair or replace the faulty part of the Power Supply at the place of purchase or the place where the Power Supply delivered without charge. This warranty does not cover the following types of failures.

- (1) Failures that result from handling or operation of the Power Supply under conditions or in environments that are not given in this document and not given in any other specifications exchanged between OMRON and the customer
- (2) Failures that originate in causes other than the delivered product itself
- (3) Failures caused by disassembly, modification, or repair of the Power Supply by anyone other than OMRON
- (4) Failures caused by applications or uses for which the Power Supply was not originally intended
- (5) Failures caused by factors that could not be anticipated with the scientific or technical knowledge available when the Power Supply was shipped
- (6) Failures caused by other causes for which OMRON is not responsible, such as natural disasters and other acts of God
 This warranty is limited to the individual product that was delivered and does not cover any secondary, subsequent, or related damages.

Recommended Replacement Periods and Periodic Replacement for Preventive Maintenance

The recommended replacement period for preventive maintenance is greatly influenced by the application environment of the Power Supply. As a guideline, the recommended replacement period is 7 to 10 years.* To prevent failures and accidents that can be caused by using a Power Supply beyond its service life, we recommend that you replace the Power Supply as early as possible within the recommended replacement period. However, bear in mind that the recommended replacement period is for reference only and does not guarantee the life of the Power Supply.

Many electronic components are used in the Power Supply and the Power Supply depends on the correct operation of these components to achieve the original Power Supply functions and performance. However, the influence of the ambient temperature on aluminum electrolytic capacitors is large, and the service life is reduced by half for each 10°C rise in temperature (Arrhenius law). When the capacity reduction life of the electrolytic capacitor is reached, Power Supply failures or accidents may occur. We therefore recommend that you replace the Power Supply periodically to minimize Power Supply failures and accidents in advance.

*The recommended replacement period applies under the following conditions: rated input voltage, load rate of 50% max., ambient temperature of 40°C max., and the standard mounting method. (The fan is excluded for models with fans.)

This product model is designed with a service life of 10 years minimum under the above conditions.



Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

- (a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.
- (b) Limitations. OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) Buyer Remedy. Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.

See http://www.omron.com/global/ or contact your Omron representative for published information.

Limitation on Liability; Etc.

OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY.

Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.

Suitability of Use.

Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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Errors and Omissions.

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OMRON Corporation Industrial Automation Company

Kyoto, JAPAN

Contact: www.ia.omron.com

Regional Headquarters OMRON EUROPE B.V.

Wegalaan 67-69, 2132 JD Hoofddorp The Netherlands Tel: (31)2356-81-300/Fax: (31)2356-81-388

OMRON ASIA PACIFIC PTE. LTD. No. 438A Alexandra Road # 05-05/08 (Lobby 2), Alexandra Technopark, Singapore 119967 Tel: (65) 6835-3011/Fax: (65) 6835-2711

OMRON ELECTRONICS LLC

2895 Greenspoint Parkway, Suite 200 Hoffman Estates, IL 60169 U.S.A. Tel: (1) 847-843-7900/Fax: (1) 847-843-7787

OMRON (CHINA) CO., LTD.
Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China Tel: (86) 21-5037-2222/Fax: (86) 21-5037-2200 **Authorized Distributor:**

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